

# ELBUG

## SUPPLEMENT TO BEEBUG

MARCH 1985 VOLUME 2 ISSUE 4

### NEWS

#### BEEBUG NEWS

Of course anything that happens in the world of the BBC micro is important to ELBUG readers too. Sooner or later it will probably happen to you as well. Of particular interest to ELBUG readers in this month's BEEBUG news is the offer of cheap monitors from T. Lucas. These will operate equally well with the Electron as they do with the BBC micro. Acornsoft's home educational software is also available for the Electron as are many of the new games listed in BEEBUG.

#### PHLOOPY FOR ELECTRON

Phi Mag Systems, the makers of the Phloopy tape drive for the BBC have now released an Electron version of this alternative to disc drives. The Electron version comes in two forms. The Bus version, for £140.85, plugs directly into the Elk's expansion port. If you already have a Plus 1, then the Plus 1 version that plugs into a cartridge port costs only £133.38. Each pack includes a single endless tape drive capable of holding up to 100K of data and is complete with interface, filing system, manual and cables. Further information from Phi Mag on 0326-76040.

#### POWERSOFT JOYSTICK UPDATE

Power Software, maker of the joystick interface for the Elk reviewed in ELBUG Vol. 2 No. 1, has revealed that some of the latest Acornsoft games will not work with joysticks using the Powersoft Interface. Acornsoft now uses a new loader program for its games and this is causing the trouble. However,

all is not lost as Powersoft has cracked the problem and is offering a free upgrade service. Send your old Powersoft Interface to:

Power Software (Attn John Smith),  
Free EJIF Upgrade,  
Thorns Road Trading Estate,  
Thorns Road,  
Brierley Hill,  
DY5 2JS.

Powersoft recommends that you wrap your interface well in a Jiffy bag and use 1st class recorded delivery (about 65p). The upgraded interface will be dispatched back to you by return of post.

#### NEW SLOGGER CASE



The Slogger ROMBOX (reviewed in ELBUG Vol.1 No. 10) has been revamped in a new casing. The new ROMBOX matches the Electron much better in both colour and shape. The price remains at £39.50. Further details from Slogger on 0634-811634



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# YOUR GUIDE TO BEEBUG

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The programs and articles in the accompanying copy of BEEBUG are, in almost every case, useful to ELBUG members. However there are some changes that need to be made to the programs for them to work correctly on an Electron and some comments to be made on the articles and reviews.

Particularly, difficulties arise due to the frequent use of the mode 7 title and instruction screens in BBC micro programs. Mode 7 is not available on the Electron, but when the Electron encounters a MODE 7 command it defaults to a mode 6 screen. So, although you should, strictly speaking, change each occurrence of MODE 7 in a BBC program to MODE 6, this isn't really necessary because the Electron treats such commands as MODE 6 anyway. Mode 7 is of the same format as mode 6 but with a full range of colours and crude graphics. BBC micro programs that include a mode 7 display will usually run alright on the Electron but with a slightly corrupted (and monochrome) display. All BEEBUG and ELBUG programs have an error trapping routine which in BEEBUG programs takes you back to a mode 7 screen. These could also be changed to produce mode 6 when converting for the Electron but again it is not necessary to do so.

The other most common problem with converting BBC micro programs is that of sound. The Electron has only one sound channel, instead of the BBC micro's three, and no control over the volume of the sound. The Electron is designed so that BBC micro programs making full use of the SOUND command will run on the Electron, though not, of course, producing the full effect. So, again, things can usually be left as they are.

One difference between the Electron and the BBC micro that you cannot alter the programs to account for is the difference in speed. The Electron runs considerably slower than the Beeb in some circumstances. This will affect some programs but not all.

## BODY POPPING

This novel program will display a wire frame model of a human body. You can even easily enter the relevant

dimensions of your own body and get up there on the screen yourself.

The program runs well on the Electron just as it is published in BEEBUG. There are no changes to be made.

## WORDWISE PLUS

Unfortunately, neither Wordwise nor the new Wordwise Plus reviewed here can operate on the Electron because of the substantial and essential use of the mode 7 display exclusive to the BBC micro.

## SPREADSHEET PROGRAM

Here is your chance to really make your Electron pay its way. This article will show you how to produce a simple spreadsheet to look after your small business interests or even your home budget.

The program will run quite correctly on an Electron. The program is complete in its own right but a second part expanding the facilities will be published next month.

## ADVENTURE GAMES

The Dungeon Master assures us that all the adventure games he has scrutinized with his one good eye this month are available for Elves with Electrons. The mode 7 graphics are not of course included but the text, the frustration, and the long hours are all present and correct.

## COMMUNICATE WITH YOUR BEEB

The ever popular modems are the subject of this review. Five modems for the BBC micro are reviewed here. However, although connection of a modem to an Electron is now possible with the Plus 1 and the RS432 cartridge, there is little software around as yet to enable your Electron to make use of this. This is because the Prestel system, accessible with a modem, relies

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on the mode 7 display of the BBC. Only 'user to user' and some bulletin board access is possible with mode 6. Hopefully software for this will soon become available. Watch this space!

#### STRUCTURED LISTINGS OF BASIC PROGRAMS

This useful utility lists your Basic programs in a much more readable format than the Electron will do on its own. Each Basic statement is listed on a new line with FOR-NEXT and REPEAT-UNTIL indented correctly. If you have a Plus 1 or any other Acorn compatible printer interface then the formatted listing can be easily printed as well.

The program also prints out any codes (such as mode 7 codes on the BBC micro and any hidden VDU codes) as half sized numbers so that you can see where they lurk.

The program listed in BEEBUG will work perfectly on the Electron with no alteration.

#### MAKING MUSIC ON THE BEEB (part 2)

BBC micro musician, Ian Waugh, takes a long hard look at the BBC Basic SOUND command. Musically minded ELBUG members can learn a thing or two from the maestro. Some features of the Beeb's sound facilities are, alas, not available on the Electron. The 'Hold' and 'Synchronization' facilities mentioned are dependent on the Beeb's three channel sound system. However the rest of the article will give you an insight into how to use this facet of your machine.

#### BEGINNERS START HERE - INTRODUCING MACHINE CODE (part 2)

This introduction to the world of machine code will be interesting to any dedicated Electron user tired of the constraints on Basic. Everything in this article and all the programs are directly applicable to the Electron with the exception of the use of mode 7. This, however, can be left as it is and the programs will operate correctly in the mode 6 that the Electron defaults to.

A photocopy of part 1 (BEEBUG Vol.3 No.8) is available for 30p and a S.A.E. from the editorial address. The whole backnumber is available as usual.

#### DATABASE PACKAGES REVIEWED

All of the database packages reviewed here require mode 7 and disc drives for their operation and so will not work on the Elk. However with the imminent arrival of the Plus 3, this is surely the way the Electron will be going.

#### WORKSHOP - USING ERROR TRAPPING

Programmers using Basic on the Electron are very familiar with errors! However there is more to them than meets the eye. This article will help you to make the most of Basic's way of coping with errors.

All parts of this article are applicable to ELBUG readers. The two programs will work correctly on an Electron.

#### CATERPILLAR

This excellent game was so popular in ELBUG that we just had to let BBC micro users have a go as well. Because ELBUG readers have already seen this one, we've included the special bonus game - Para-invaders - in this supplement.

#### TURBO PASCAL

This review of Turbo Pascal will hold little interest for most Electron owners because this package not only requires a BBC micro but a 280 second processor as well!

For ELBUG members interested in Pascal, Acornsoft have released a version of this language that conforms to the ISO standard in cartridge form for the Electron with Plus 1. For a review of the BBC micro version of this, see BEEBUG Vol.3 No.6.

#### POSTBAG

Read how the other half lives! The views and comments (even criticism!) of ELBUG readers are always welcome as well.

#### SPIDER MAN

An excellent game that will frustrate Beeb and Electron owners alike. Spider man combines many of the good qualities of the best games that we have published in ELBUG and requires no changes to run perfectly on the Electron. Don't miss this one. ●



# MUSHROOM INTERFACES

Reviewed by Geoff Bains

Latest in the line of add-ons to fit onto the back of your Electron come two interfaces from Broadway Electronics. Geoff Bains checks out the details.

Product : Mushroom ROM Card  
 Supplier : Broadway Electronics,  
 Aston Road, Bedford,  
 Beds., MK42 0LJ.  
 0234-58303.  
 Price : £29.95



One of the most sadly missed features of the Electron when it was first launched, that is present on its big brother the Beeb, is the facility to take several 'sideways' ROMs. These ROMs can be switched in and out by software on the Beeb so that several ROM programs can effectively be present in the computer at the same time without taking up any more of the computer's memory than a single one. The ROMs can be so-called 'service' ROMs, with various utilities, or language ROMs that can not only contain alternative languages to Basic but also applications programs such as a word processor or machine code monitor such as Beebugsoft's own Exmon.

All the software required to control this switching system is in fact present in your Electron. It only requires a little bit of hardware to actually provide the extra ROM chip sockets. Acorn's Plus 1 is one method of providing this extra hardware. The cartridge slots in the Plus 1 are in fact equivalent to the BBC micro's sideways ROM sockets. However, because

of the cost of packaging software in the neat plastic cartridges required for the Plus 1, only Acornsoft has as yet taken advantage of this method with games cartridges and second languages such as LISP.

A second method of providing the extra ROM sockets is to provide an add-on circuit board with the extra sockets on that. This is the method chosen by a number of manufacturers (see reviews in ELBUG Vol.1 Nos. 5 and 10). Now Broadway Electronics have joined the throng with the Mushroom ROM card.

This unit is extremely well made, cased in that increasingly rare material for home computer equipment - steel. The unit has an edge connector at one end to plug onto the Electron's expansion connector and a connector at the rear to take any further add-ons.

Undoing two screws allows the unit to be slid in two to reveal the sockets inside. Only four sockets are provided by this unit. This is a little strange as the Electron's operating system will cope with a total of sixteen ROMs including the Basic ROM already resident in the Electron. This means that the opportunity for a further eleven ROMs has been 'wasted' with the Mushroom card. More sockets could have been provided on this interface for very little extra cost.

However, there is little in the way of Electron ROM software around at the moment so this is unlikely to worry you for a while yet. Many of the BBC micro's numerous items of ROM software also work with the Electron equipped with the Mushroom card. However, as several of these make extensive use of the Beeb's mode 7 display they cannot operate properly on the Electron. Those like View and Computer Concepts' Graphics extension ROM will work partially with the Electron.

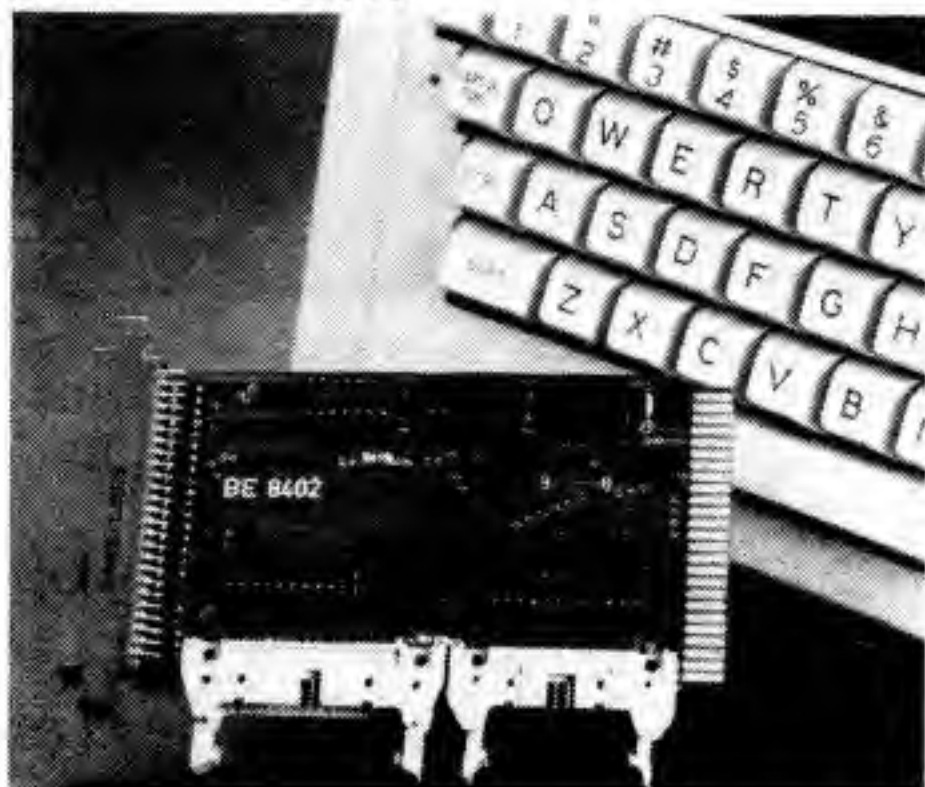


Unless you particularly want an item of software that is only available for the Electron as a ROM, a ROM expansion card such as this is only an unnecessary expense. However if you do find yourself in this position, and the number of ROMs you expect to need doesn't exceed four, then the Mushroom card must represent the best made of the cards available.

Product : Mushroom Printer and User Port Interface

Supplier : Broadway Electronics,  
Aston Road, Bedford,  
Beds., MK42 0LJ.  
0234-58303.

Price : £49.95



As well as 'missing' sideways ROM sockets, the Electron also has no Centronics printer and user ports like the BBC micro. The former allows you to use almost any standard printer for hard copy from your computer, and the latter to add on all kinds of simple commercial and home built hardware. This lack is put to rights by another interface from Broadway Electronics. The Mushroom printer and user port interface is as well made as the ROM card. Again it is cased in metal with an edge connector at one end for plugging into the Electron and an expansion connector at the other for further add-ons.

In the BBC micro the printer port and the user port are both based on the

same interfacing chip. In Acorn's Plus 1 interface for the Electron this is not repeated and only a printer port is provided - a bit of a waste of an opportunity. The Mushroom interface, however, follows the example of the BBC micro and provides exactly the same printer and user port configuration as that machine with connections having the same pin out as used on the Beeb. This means that printer cables and add-ons designed for the BBC micro will, as far as hardware is concerned, operate equally well on the Electron with this interface.

To use the printer, software is provided on a cassette which must be loaded into your Electron before you start to use your machine each time you switch on. A far more convenient method would have been to have this software in ROM as it is in the Plus 1. However, the software that is provided works well and allows you to use the printer from Basic in exactly the same way as you can with a BBC micro or and Electron/Plus 1 combination. A screen dump routine suitable for Epson (or compatible) printers is also included.

Rather strangely, the Mushroom interface differs from the corresponding ports on the BBC micro in one important aspect. The two ports are mapped into the Electron's memory at a different place than they are in the BBC micro's. This means that although hardware for the Beeb's user port is compatible with this interface, any software written for the BBC micro is of no use to Electron users. Not only that, but the relevant \*FX calls used in the BBC micro for controlling the user port are not implemented in the Mushroom software.

The Mushroom interface is certainly well made and is a reasonable price but it would have been better to have seen some more thought put into the software that accompanies it, to bring it more in line with the existing BBC micro 'standard'. Only by doing this will the interface really prove useful in the long run.



# PARA-INVADERS

by Kevin Allen

Para-invaders is a fast action game that embodies all the virtues (or is that vices?) of the arcade games of yesteryear. Although simple in concept it is remarkably challenging to play.

The invaders are here again and, as usual, the task of defending the planet, making the cosmos safe for the rest of us, and generally beating up the baddies falls onto your shoulders.

This time the invaders are attacking the domed cities of Earth with parachute bombs (well they would, wouldn't they). By a strange quirk of fate there is only a single defence against this kind of attack. This is the missile launcher under your command. As the parachutes descend you have to guide the missile launcher's cross sights in front of a descending para-bomb and fire the missile. The explosion in the path of the alien nasty will successfully save a city from an explosive end.

Of course the aliens are not stupid. They don't waste time raining bombs down on a city that is already destroyed. So as they claim more victories, the pace gets hotter above the cities remaining intact. They will also attack your missile base. If that is destroyed, or if all the cities are wiped out then you lose the game, the world and your reputation as a good guy.

Being fond of such tactics, the aliens attack in waves, each more threatening than the last. At first defending your kin-folk is easy, but as the attackers get faster and start to descend in twos, the going gets harder.

Controlling the missile sights is simply a matter of mastering five keys - the usual Z, X, :, and / for movement and the space bar to fire. You can choose which level you start the game at, and when you fail on one level the game will restart at that level to give you another go.

Para-Invaders is reasonably well structured with much use being made of procedures. These all have meaningful



names so you should soon know your way around the program when you have typed it in. Make sure that you save a copy of the program onto cassette before you run it in case you have made any 'fatal' mistakes when typing. Happy blasting!

```

10 REM PROGRAM PARA-INVADERS
20 REM VERSION E0.1
30 REM AUTHOR KEVIN ALLEN
40 REM ELBUG MARCH 1985
50 REM PROGRAM SUBJECT TO COPYRIGHT
60 :
100 ON ERROR GOTO 2530
110 DIM EX$(4),R$(8)
120 MODE 6
130 PROCinfo
140 REPEAT
150 MODE 5
160 PROCsetup
170 PROCscreen
180 REPEAT
190 PROCchute
200 PROCcross
210 IF INKEY(-99) THEN PROCfire
220 UNTIL end%
230 IF newwave% THEN 170
240 UNTIL FALSE
250 :
1000 DEF PROCfire
1010 IF end% THEN ENDPROC
1020 SOUND 0,1,80,4

```

```

1030 GCOL 0,3
1040 MOVE 640,64
1050 DRAW X%+32,Y%-16:A%=X%:B%=Y%
1060 F%=0:REPEAT F%=F%+1
1070 IF F%=2:MOVE 640,64:GCOL 0,0:DRAW
A%+32,B%-16
1080 IF F%=4:MOVE A%,B%:VDU 9,127:GOTO 1100
1090 MOVE A%,B%:GCOL 0,1:PRINT EX$(F%)
1100 PROCchute:PROCcross
1110 IF W%>4:PROCchute2:ELSE PROCchute
1120 PROCcross
1130 UNTIL F%=4 OR end%
1140 ENDPROC
1150 :
1160 DEF PROCsetup
1170 ENVELOPE 1,3,-17,61,9,4,0,0,126,0
,0,-126,126,126
1180 ENVELOPE 2,1,36,-36,0,20,20,0,126
,0,0,-126,126,126
1190 VDU 23,238,0,0,0,67,96,249,134,196
1200 VDU 23,239,0,0,0,132,184,254,130,
71
1210 RUIN$=CHR$(238)+CHR$(239)
1220 VDU 23,240,7,26,37,73,74,255,210,
70
1230 VDU 23,241,192,176,72,36,164,254,
150,199
1240 CITY$=CHR$(240)+CHR$(241)
1250 VDU 23,242,1,2,2,2,4,89,251,255
1260 VDU 23,243,0,128,128,128,64,52,19
0,255
1270 BASE$=CHR$(242)+CHR$(243)
1280 VDU 23,244,60,126,255,255,0,0,0,0
1290 VDU 23,245,0,0,0,0,68,40,60,60
1300 VDU 23,246,0,0,24,60,60,24,0,0
1310 VDU 23,247,0,102,126,60,60,126,10
2,0
1320 VDU 19,1,5;0;19,2,2;0;
1330 FOR I%=0 TO 8:R%(I%)=0:NEXT I%
1340 X%=608:Y%=512:x%=X%:y%=Y%
1350 CX%=608:CY%=858:cy%=CY%
1360 QX%=1:QY%=1:r%=0:sy%=QY%
1370 Count%=0:L%=4:Z%=0:S%=0
1380 EX$(1)=CHR$(246)
1390 EX$(2)=CHR$(247)
1400 EX$(3)=EX$(2)
1410 EX$(4)=EX$(3)
1420 ENDPROC
1430 :
1440 DEF PROCinfo
1450 VDU 19,1,6;0;
1460 PRINT TAB(1,5)"Protect the cities
from the parachuting"TAB(5)"invaders
with your laser base."
1470 PRINT TAB(14,10)"Z - Left"TAB(
14,11)"X - Right"TAB(14,12)"* - Up"
TAB(14,13)"/ - Down"TAB(10,14)"Space
- Fire"

```



```

1480 PRINT TAB(2,20)"PLEASE ENTER STAR
TING LEVEL(1-8):";:REPEAT W$=GET$:UNTIL
INSTR("12345678",W$)>0
1490 PRINT W$:W%=VAL(W$)
1500 PRINT TAB(6,23)"PRESS SPACE BAR T
O START"
1510 REPEAT UNTIL INKEY(-99)
1520 CLS
1530 ENDPROC
1540 :
1550 DEF PROCscreen
1560 CLS
1570 R%(4)=0
1580 VDU 4:GCOL 0,3
1590 MOVE 0,860:DRAW 1279,860:DRAW 127
9,32:DRAW 0,32:DRAW 0,860
1600 FOR J%=0 TO 3
1610 IF R%(J%)=0:COLOUR 2:PRINT TAB(J%
*2+1,30);CITY$ ELSE COLOUR 1:PRINT TAB(
J%*2+1,30);RUIN$
1620 NEXT J%
1630 COLOUR 3:PRINT TAB(9,30);BASE$
1640 FOR J%=5 TO 8
1650 IF R%(J%)=0:COLOUR 2:PRINT TAB(J%
*2+1,30);CITY$ ELSE COLOUR 1:PRINT TAB(
J%*2+1,30);RUIN$
1660 NEXT J%:COLOUR 2
1670 PRINT TAB(3,1)"PARA-INVASION"
1680 S$=STR$(S%):PRINT TAB(0,3)"SCORE:
";TAB(11-LEN(S$));S$;TAB(13,3)"WAVE:";W%
1690 GCOL 0,3:FOR Q%=1 TO 100:PLOT 69,
RND(1151)+64,RND(796)+64:NEXT
1700 A%=0:B%=0:J%=CX%
1710 PROCnew:QY%=E%:QX%=GF%:J%=QX%
1720 PROCnew:CY%=E%:CX%=GF%
1730 end%=FALSE:newwave%=FALSE
1740 VDU 5
1750 ENDPROC
1760 :
1770 DEF PROCdelay(D%)
1780 NOW=TIME:REPEAT UNTIL TIME>NOW+D%

```



```

1790 ENDPROC
1800 :
1810 DEF PROCcross
1820 IF end% THEN ENDPROC
1830 IF INKEY(-98):X%=X%-64:IF X%<32:X
%=32
1840 IF INKEY(-67):X%=X%+64:IF X%>1184
:X%=1184
1850 IF INKEY(-73):Y%=Y%+48:IF Y%>828:
Y%=828
1860 IF INKEY(-105):Y%=Y%-48:IF Y%<96:
Y%=96
1870 GCOL 0,0:MOVE x%,y%:PRINT"+"
1880 GCOL 0,2:MOVE X%,Y%:PRINT"+"
1890 x%=X%:y%=Y%
1900 ENDPROC
1910 :
1920 DEF PROCchute
1930 IF end% THEN ENDPROC
1940 CY%=CY%-10-W%*3.5
1950 GCOL0,0:MOVE CX%,cy%:VDU244,8,245
1960 IF CY%<32:M%=CY%:N%=CX%:K%=QX%:PR
OChit:CX%=N%:CY%=M%
1970 IF A%=CX% AND (CY%-2)<B% AND B%<c
y%:M%=CY%:N%=CX%:K%=QX%:PROClaunch:CX%=
N%:CY%=M%
1980 MOVE CX%,CY%:GCOL 0,3:VDU 244,8:G
COL 0,1:VDU245
1990 cy%=CY%
2000 IF W%>4 THEN PROCcross:PROCchute2
2010 ENDPROC
2020 :
2030 DEF PROCchute2
2040 IF end% THEN ENDPROC
2050 QY%=QY%-14-W%*3.75
2060 GCOL0,0:MOVE QX%,sy%:VDU244,8,245
2070 IF QY%<32:M%=QY%:N%=QX%:K%=CX%:PR
OChit:QX%=N%:QY%=M%
2080 IF A%=QX% AND (QY%-2)<B% AND B%<s
y%:M%=QY%:N%=QX%:K%=CX%:PROClaunch:QX%=
N%:QY%=M%
2090 MOVE QX%,QY%:GCOL 0,3:VDU 244,8:G
COL 0,1:VDU245
2100 sy%=QY%
2110 ENDPROC
2120 :
2130 DEF PROC hit
2140 GCOL 0,1:MOVE N%+96,64:VDU 127,12
7:PRINT RUIN$
2150 *FX 15,0
2160 SOUND 0,2,40,10
2170 l%=(N%/64-1.5)/2
2180 R%(l%)=1

```



```

2190 IF R%(4)=1:VDU 4,17,1,19,1,15;0;:
PRINT TAB(4,14)"MISSILE BASE"TAB(6,16)
"DESTROYED"TAB(4,22)"PRESS RETURN"TAB(4
,24)"FOR NEW GAME"TAB(1,26)"OR ESCAPE
TO STOP":REPEAT UNTIL INKEY(-74):end%=T
RUE:ENDPROC
2200 Count%=Count%+1:IF Count%=8:VDU 4
,17,1,19,1,15;0;:PRINT TAB(2,14)"CITIES
DESTROYED";TAB(4,22)"PRESS RETURN"TAB(
4,24)"FOR NEW GAME"TAB(1,26)"OR ESCAPE
TO STOP":REPEAT UNTIL INKEY(-74):end%=
TRUE:ENDPROC
2210 IF N%=CX%:J%=QX%:ELSE J%=CX%
2220 PROCnew:M%=E%:N%=GF%
2230 ENDPROC
2240 :
2250 DEF PROClaunch
2260 SOUND 1,1,130,5
2270 IF N%=CX%:J%=QX%:ELSE J%=CX%
2280 PROCnew
2290 M%=E%:N%=GF%:Z%=Z%+1
2300 S%=S%+25:S$=STR$(S%)
2310 VDU 4:PRINT TAB(11-LEN(S$),3);S$:
VDU 5
2320 IF Z%=12:PROCnewwave:end%=TRUE:ne
wwave%=TRUE
2330 ENDPROC
2340 :
2350 DEF PROCnewwave
2360 VDU 4,17,3
2370 PRINT TAB(2,14)"WAVE ";W%;" SURVI
VED";TAB(5,16)"BONUS:";(8-Count%)*50
2380 PROCdelay(150)
2390 W%=W%+1:S%=S%+(8-Count%)*50
2400 PRINT TAB(1,18)"PREPARE FOR WAVE
";W%:Z%=0
2410 CX%=N%:CY%=M%:X%=608:Y%=512
2420 PROCdelay(150):CLS
2430 READ P%:VDU 19,2,P%;0;:IF P%=2:RE
STORE 2440
2440 DATA 6,3,1,2
2450 ENDPROC
2460 :
2470 DEF PROCnew
2480 REPEAT L%=RND(9)-1:UNTIL R%(L%)=0
2490 E%=858:GF%=(L%*2+1.5)*64
2500 IF J%=GF%:GOTO 2480
2510 ENDPROC
2520 :
2530 ON ERROR OFF
2540 MODE 6
2550 IF ERR<>17 THEN REPORT:PRINT " at
line ";ERL
2560 END

```





# IMPORTANT NOTICE

Dear ELBUG Member,

No doubt you were surprised when you opened the envelope to find not your usual ELBUG magazine, but BEEBUG and an ELBUG supplement. We would like to explain why we have made this change and why we believe this will provide you with even better value for your subscription than before.

As you are probably aware, there is a very strong similarity between the BBC micro and the Acorn Electron. Both use the same excellent BBC Basic and built-in assembler. With the increasing range of add-ons for the Electron, including the Plus 3 disc unit, this micro can now be readily expanded to provide most of the features available on the BBC micro. The range of software for the Electron has expanded as well so that the differences between the two machines and what they can achieve have been very much reduced, and will continue to diminish further.

Now that the Electron has grown up, we feel that this is also the right time for ELBUG to change as well. In future, members of both BEEBUG and ELBUG will receive BEEBUG magazine, and ELBUG members will additionally receive an ELBUG Supplement. This will provide you with 60 pages of articles, programs, reviews and other features compared with the 36 pages of the previous ELBUG magazine.

We shall use the ELBUG Supplement to continue to publish articles, programs and reviews specifically for Electron owners. This month there is an extra game, hardware reviews and a news round-up. In this way we shall continue to cater specifically for our ELBUG members while offering a much increased and varied range of articles and other items of interest.

The ELBUG Supplement will also contain notes on the articles and programs in BEEBUG, and in particular will tell you of any necessary or desirable changes to be made for programs to run on the Electron. These changes are likely to be small, and in this issue for example, all the BEEBUG programs will run on the Electron unaltered.

A further change is that the advertising supplement will no longer be sent out to ELBUG members. Most of the contents including the advertisements are only relevant to BEEBUG members anyway. Instead, we shall include any such information (games high scores, discounts etc.) in the ELBUG Supplement.

We believe that now is the time for us to make these changes, when the Electron has grown up and shown us all what it can achieve. We are sure that by so doing we shall be able to offer even more to our ELBUG members and yet still retain the special Electron flavour.

Mike Williams  
(Editor)



# BEEBUGSOFT LTD

Software for the BBC Micro & Electron

March 1985

## Members Price List and Order Form

### BEEBUGSOFT PRODUCTS

Product	Eprom Price	No Rqd.	5" Disc Price	No. Rqd.	Cass. Price	No. Rqd.	Total Price
<b>UTILITIES</b>							
Sleuth BBC	£29.00	.....	—	—	—	—	.....
Toolkit BBC	£27.00	.....	—	—	—	—	.....
Toolkit Electron	£27.00	.....	—	—	—	—	.....
Exmon II BBC	£29.00	.....	—	—	£10.00	.....	.....
Exmon Electron	£27.00	.....	—	—	£10.00	.....	.....
Help BBC	£25.00	.....	—	—	—	—	.....
Spellcheck (W,Wise) BBC	—	—	£19.00	.....	—	—	.....
Spellcheck (View) BBC	—	—	£19.00	.....	—	—	.....
Spellcheck II BBC	£31.00	.....	—	—	—	—	.....
Discmaster BBC	—	—	£19.00	.....	—	—	.....
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